A trade discount is a reduction in a list price or a Manufacturer’s suggested retail price (MSRP) and is usually written as a percent of the list price.

\[
\text{Amount of Discount} = \text{List Price} \times \text{Rate of Discount}
\]

\[
D_t = Ld
\]

or \( L = \frac{D_t}{d} \)

or \( d = \frac{D_t}{L} \)

The net price is the remainder when the amount of discount is subtracted from the list price.

\[
\text{Net Price} = \text{List Price} - \text{Amount of Discount}
\]

\[
N = L - D_t
\]

\[
\Rightarrow N = L - Ld
\]

\[
\Rightarrow N = L(1 - d)
\]

Net Price Factor

\[
\text{Net Price Factor} = 100\% - \%\text{Discount}
\]

\[
\Rightarrow NPF = 100\% - d
\]

\[
\Rightarrow NPF = 1 - d
\]

Net Price = List Price \times Net Price Factor

\[
N = L(1 - d)
\]

Discount Series: If a manufacturer offers two or more discounts, then:

\[
NPF = (1 - d_1)(1 - d_2) \ldots (1 - d_n)
\]

and, \( N = L(1 - d_1)(1 - d_2) \ldots (1 - d_n) \)
Tip sheet: Summary

Business Math Series

- If a manufacturer offers two or more discounts then the **single equivalent rate of discount for a discount series**:

\[ d = 1 - NPF \]

\[ d = 1 - [(1 - d_1)(1 - d_2) ... (1 - d_n)] \]